

Amendments to the Specification:

Please amend paragraph 0010 as follows:

[0010] Fig. 3 shows a first embodiment of a coupling circuit 300 for implementing process 500 described in connection with Fig. 5. Circuit 300 is comprised of a sample signal generator, a sample-and-hold circuit, and a voltage amplifier. In this first embodiment of the invention the sample signal generator comprises a differentiator formed by capacitor C3 and resistor R8 and an inverting pulse amplifier Q1. The input of the differentiator receives a sample timing signal and the output of the differentiator is operatively coupled to the input of the inverting pulse amplifier (in this embodiment the base of ~~NPN~~ PNP bipolar transistor Q1). An exemplary waveform of the sample timing signal is shown in Fig. 4 as Sample. The input waveform to inverting pulse amplifier Q1 is shown in Fig. 4 as Differential. The time constant of the differentiator is selected such that it can differentiate the edges of the sample timing signal received at the differentiator input. The output of the inverting pulse amplifier (in this embodiment the collector of ~~NPN~~ PNP bipolar transistor Q1) is operatively coupled to the sample trigger of the sample-and-hold circuit. Resistors R5 and R6 place the inverting pulse amplifier output signal, whose waveform is shown in Fig. 4 as Sample Pulse, at the voltage level appropriate for the particular sample-and-hold circuit employed.

Please amend the Abstract as follows:

~~Disclosed are~~ A systems and methods for ~~generating~~ generate a progressively corrected scan signal, the progressively corrected scan signal having a magnitude independent of spectral reflectance from a background near a target. One of the methods ~~disclosed comprises~~ involves generating a baseline signal by sampling light reflected from the target and background before transmitting a light scan at the target, generating a detected signal by receiving light reflected from the target and background while transmitting the light scan at the target, and subtracting the baseline signal from the detected signal to form the progressively corrected scan signal. ~~Also disclosed are circuits for producing~~ One circuit embodiment produces an average level independent output signal from an input signal subject to fluctuations in average level.